



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,584	10/23/2001	Micheal Kenneth Brown	401052-B-01-US(Brown)	6513

47523 7590 04/07/2005

JOHN C. MORAN, ATTORNEY, P.C.  
4120 EAST 115 PLACE  
THORNTON, CO 80233-2623

EXAMINER

SING, SIMON P

ART UNIT	PAPER NUMBER
----------	--------------

2645

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/037,584

Applicant(s)

BROWN ET AL.

Examiner

Simon Sing

Art Unit

2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2050404.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4, 8 and 12-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Tuttle US 6,324,262.

1.1 Regarding claim 1, Tuttle discloses a method of automated messages delivery in figure 3. Tuttle teaches:

receiving audio information from a destination endpoint (column 6, lines 1-38);  
concurrently analyzing the received audio information (column 6, lines 1-38),  
using a voice recognition unit (software program 70) (column 6, lines 9-18; column 4, lines 30-43); and

determining a call classification (answered by a live person or by an answering machine) (column 6, lines 9-18; column 5, lines 6-11).

1.2 Regarding claim 2, Tuttle teaches that a first type of classification is for words, such as: "Hello", "Hello, Smith residence", and "ABC Enterprises ..." (column 6, lines 20-24).

1.3 Regarding claim 3, Tuttle teaches that words are formed as phrase, such as "Smith Residence" and "ABC Enterprises" (column 6, lines 20-24).

1.4 Regarding claim 4, Tuttle teaches that its system must determine reaching an answering machine by detecting a non-human tone (beep) or tones (beeps) (column 6, lines 39-62).

1.5 Regarding claim 8, Tuttle discloses a method of automated messages delivery in figure 3. Tuttle teaches:

- receiving audio information from a destination endpoint (column 6, lines 1-38);
- concurrently analyzing the received audio information, using a voice recognition unit (software program 70) (column 6, lines 9-18; column 4, lines 30-43) for words and tones (column 6, lines 20-62); and
- determining a call classification (answered by a live person or by an answering machine) (column 6, lines 9-18; column 5, lines 6-11).

1.6 Regarding claim 12, Tuttle discloses a method of automated messages delivery in figure 3. Tuttle teaches:

receiving audio information from a destination endpoint (column 6, lines 1-38) by an automatic speech recognition unit (software program 70) (column 6, lines 9-18; column 4, lines 30-43);

concurrently analyzing the received audio information (column 6, lines 1-38), using a voice recognition unit (column 4, lines 30-43) for a first type of classification (answered by a live person) and a second type of classification (answered by an answering machine); and

determining a call classification in response to the analyzing (column 6, lines 9-18; column 5, lines 6-11).

1.7 Regarding claim 13, Tuttle teaches that a first type of classification is for words, such as: "Hello", "Hello, Smith residence", and "ABC Enterprises ..." (column 6, lines 20-24).

1.8 Regarding claim 14, Tuttle teaches that words are formed as phrase, such as "Smith Residence" and "ABC Enterprises" (column 6, lines 20-24).

1.9 Regarding claim 15, Tuttle teaches that its system must determine reaching an answering machine by detecting a non-human tone (beep) or tones (beeps) (column 6, lines 39-62).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5, 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuttle US 6,324,262 in view of Colbbett et al. US 5,799,278.

Tuttle teaches determining audio information received from a destination endpoint, including words or tones (beeps), but fails to teach a Hidden Markov Model (HMM) to determine the presence of words or tones.

However, Cobbett discloses using a Hidden Markov Model, which is popular for speech recognition, to recognize a number of words or tones (column 1, lines 16-24; column 32-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Tuttle's reference, with the teaching of Colbbett, so that a Hidden Markov Model (HMM) would have been used for performing voice recognition, because HMM was well know in the art, and using HMM for voice recognition would have been a matter of design choice.

3. Claims 6, 7, 10, 11, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuttle US 6,324,262 in view of Colbbett et al. US 5,799,278 and further in view of Raman et al. US 5,842,165.

The modified Tuttle reference, teaches using Hidden Markov Model for voice recognition, but fails to teach using grammar and inference.

However, Raman discloses a method for speech recognition using the Hidden Markov Model (column 2, lines 21-26). Raman teaches using grammar rules (column 2, lines 27-47) and comparing (inference) received speech to stored templates (column 1, lines 28-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Tuttle's reference, with the teaching of Raman, so that voice recognition would have used grammar rules and comparison, because using a grammar and comparing to a pre-stored template in voice recognition were well know in the art, and using such method would have been a matter of design choice.

4. Claims 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuttle US 6,324,262 in view of Raman et al. US 5,842,165.

4.1 Regarding claim 19, Tuttle discloses a system for automated messages delivery in figure 1, comprising an automatic voice recognition unit (software program 70)

Art Unit: 2645

(column 6, lines 9-18; column 4, lines 30-43) for detecting a first (answered by a live person) and a second (answered by an answering machine) in audio information received from a destination endpoint (column 6, lines 1-38). Tuttle teaches determining a call classification whether it is being answered by a live person or by an answering machine, but fails to teach an inference engine (comparison software) for determining said classification.

However, Raman discloses an apparatus speech recognition using the Hidden Markov Model (column 2, lines 21-26). Raman teaches comparing (inference) received speech to stored templates (column 1, lines 28-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Tuttle's reference, with the teaching of Raman, so that voice recognition would have been comprised a software program for comparing (inference) received audio information with pre-stored templates, because using a comparing to a pre-stored template in voice recognition was well know in the art, and using such a method would have been a matter of design choice.

4.2 Regarding claim 20, Tuttle teaches that a first type of characteristics is for words, such as: "Hello", "Hello, Smith residence", and "ABC Enterprises ..." (column 6, lines 20-24).

4.3 Regarding claim 21, Tuttle teaches that words are formed as phrase, such as "Smith Residence" and "ABC Enterprises" (column 6, lines 20-24).



4.4 Regarding claim 22, Tuttle teaches that its system must determine reaching an answering machine by detecting a non-human tone (beep) or tones (beeps) (column 6, lines 39-62).

4.5 Regarding claim 23, the modified Tuttle reference, teaches using a voice recognition unit to detect characteristics of received audio information, but fails to teach using a Hidden Markov Model (HMM) for voice recognition.

However, Raman further teaches that a Hidden Markov Model is commonly used for speaker independent or dependent speech recognition (column 2, lines 21-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Tuttle's reference, with the further teaching of Raman, so that voice recognition would have been comprised a Hidden Markov Model (HMM), because HMM was well know in the art, and using HMM for voice recognition would have been a matter of design choice.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) US 5,796,791 (POLCYN) discloses an automatic dialer with voice recognition for determining a call is being answered by a live person, or by an answering machine (column 12, lines 55-67; column 13, lines 43-46).


b) US 6,097,791 (LADD et al.) discloses a voice message delivery system, in that a VMS (voice messaging system) calls an intended recipient and determines whether the call is being received by a live person, or by an answering machine (column 5, lines 12-31).

6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is (571) 272-7545. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.



S. Sing

04/04/2005



FAN TSANG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600